

OFFICE COPY 173

CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society

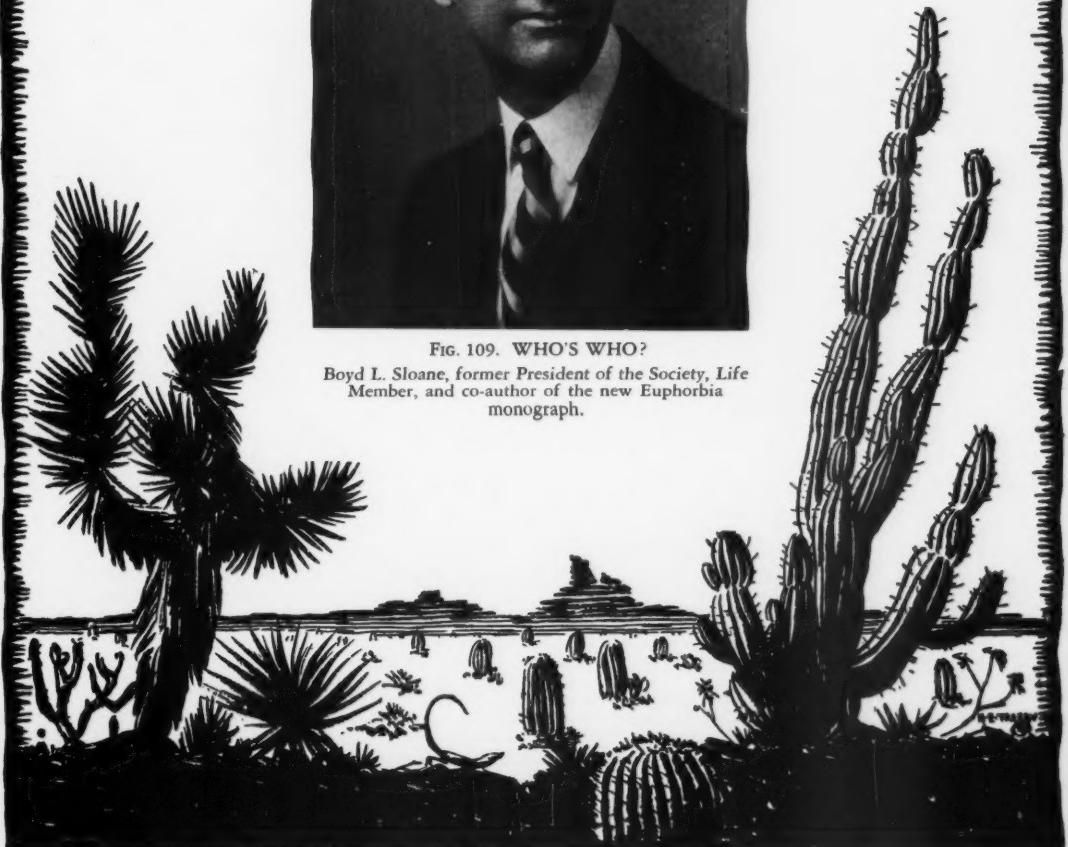
Of America

Vol. XIII NOVEMBER, 1941 No. 11



FIG. 109. WHO'S WHO?

Boyd L. Sloane, former President of the Society, Life Member, and co-author of the new Euphorbia monograph.



CACTUS AND SUCCULENT JOURNAL

Published and Owned by the Cactus and Succulent Society of America, Inc., Box 101, Pasadena, California. A monthly magazine to promote the Society and devoted to Cacti and Succulents for the dissemination of knowledge and the recording of hitherto unpublished data in order that the culture and study of these particular plants may attain the popularity which is justly theirs. Subscription \$3.00 per year. Foreign \$3.00 per year by international money order. Membership in the Cactus Society free with subscription. Mail application to SCOTT HASELTON, Editor, Box 101, Pasadena, Calif. Editorial Staff: THE ENTIRE SOCIETY. Entered as Second Class Matter at Pasadena, Calif., under act of March 3, 1879.

Vol. XIII

NOVEMBER, 1941

No. 11

Notes on Haworthias— <i>Haworthia minima</i> Bak.	J. R. Brown	175
The Cascading Epiphyllums, Part II.	Dr. Jacolyn Manning	176
Some New Species of Stapeliace and Ceropegiae from East Africa.	Eileen A. Bruce and Peter R. O. Bally	179
Joshua Tree National Monument.	H. Smith	182
On Methods and Experiments.	Leon Croizat	184
This Hobby of Ours.	Mrs. J. Frank Key	186
On the Pronunciation of Scientific Names.	Robert S. Woods	187

THE AMATEUR CACTUS AND SUCCULENT SOCIETY OF BRITISH COLUMBIA

The Cactus and Succulent Society of British Columbia ended their first fiscal year on October 7 with progress in the membership. At the election of officers during the meeting, Mr. A. E. Marchanton, 103 W. 14 Ave., was returned as President to guide the Society for the coming year. Mr. R. G. Shaw, 5248 Clarendon Street, was chosen as Secretary.

The Society, which has been formed a year, first met with five members in a room in one of the Fire Halls. At their second meeting a month later with four more cactus fans, they elected a president, secretary, treasurer, and other necessary officers, and drew up by-laws and named their Society. In a few months the membership of nineteen overgrew the room, so a move was made to larger quarters. During the summer months no meetings were held but visits were made to the collections of the different members, where the evenings were taken up with a general discussion on soils, etc. On two occasions talks were given by Mr. Crabtree on soil and alkalinity, and on another evening by Mr. Mayers on insecticides and fungicides; both of these gentlemen are members of a large seed and grain firm in this city.

Now that the winter evenings are here, lectures with discussions will take place, with care of the plants during the winter.

The Society extends a hearty invitation to members of other Societies and their friends to visit us when in Vancouver.

R. G. SHAW, Secretary,
5248 Clarendon St., Vancouver, B.C.

FROM YALE DAWSON

Society members will remember Yale Dawson—that enthusiastic young cactus explorer who built an enviable collection in Long Beach, California. Now we hear from him as co-author of a paper prepared at the University of California, Department of Botany.

The paper "Binghamia, the Alga, versus *Binghamia*, the Cactus" proves that the generic name *Binghamia* belongs to the cactus world because it was never used, according to the International Rules of Botanical Nomenclature, as a generic name for alga.

This will recall to many of us all of the confusion caused by changing the cactus *Mammillaria* to *Neomammillaria* because Britton and Rose found an alga by the former name. The more recent writers have ignored the International Rules because the alga was an obscure species!

NEW AFFILIATE

The Central Iowa Cactus Club has joined the Cactus and Succulent Society of America and we look forward to progressive group activity.

B-1 FOR TRANSPLANTING

I want to tell you of my experiences with B-1 solution. I used it in transplanting my cactus this spring, which I did after they had begun to grow. After shaking the dirt from the roots of the plants (gentlely of course) I let them soak in the usual strength B-1 solution, as recommended on the bottle, until the new soil was ready in the cleaned pots (usually about 1/2 hour) as I rarely fix more than 8 plants at a time.

Some plants showed an improvement immediately, especially *Cleistocactus baumannii* which had practically stood still for a year, the size of the branches increased at least 1/3 in less than two weeks. *Asstrophytum ornatum* was another that showed marked improvement, though it had done well last year. I didn't lose a plant in transplanting about 150 while last year, without B-1, several died.

MRS. JOHN W. OAKLEY, Seattle, Washington.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912. Of Cactus and Succulent Journal, published monthly at Pasadena, for October, 1941, State of California, County of Los Angeles.

Before me, a notary in and for the State and county aforesaid, personally appeared Scott E. Haselton, who, having been duly sworn according to law, deposes and says that he is the Editor-Publisher of the CACTUS AND SUCCULENT JOURNAL, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

- That the names and addresses of the publisher, editor, managing editor, and business managers are: Scott E. Haselton, Box 101, Pasadena.
- That the owner is: CACTUS AND SUCCULENT SOCIETY OF AMERICA, INC., and leased to SCOTT E. HASELTON, who created and published said magazine to date.
- That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None. Cactus and Succulent Society is a nonprofit organization and issues no stock.

SCOTT E. HASELTON.

Sworn to and subscribed before me this 11th day of October, 1941.

FIG. 110. *Haworthia minima*, Bak., nat. size.

Notes on Haworthias

By J. R. BROWN

Haworthia minima, Bak. in Journ. Linn. Soc. XVIII (1880) 215; Berger in Pflanzenr. IV 38. (1908) 113; Poelln. in Kakt. u. andere Sukk. (1938) 38. *Haworthia tenera*, Poelln. in Repert. Sp. Nov. XXXI (1932) 86.

Plant stemless, 2-3 cm. in diam. and forming a cluster with age. Leaves numerous, 12-20 mm.

long, 4-7 mm. wide, ovate-lanceolate, acuminate, pale glaucous green and with a 2 mm. long, toothed or ciliated end bristle, keeled or doubly keeled in the upper part, the margins and keels with pellucid, ciliate teeth, $\frac{1}{2}$ -1 mm. long.

Peduncles simple, reddish tinged, to 20 cm. tall including the 12 or more flowered raceme; pedicels 2-4 mm. long, the deltoid-lanceolate

bracts about equal or slightly longer; perianth 12-15 mm. long, the obclavate tube white, brown lined, the segments white with brown keels.

Introduced to Kew by Tuck about 1860.

Locality: Type locality unknown. Recorded from the Albany Distr. Received from the vicinity of Grahamstown by the writer.

Haworthia minima is an attractive little plant, especially when in flower, due to the short peduncles and the comparatively large flowers. Berger compares its habit with that of *Sempervivum soboliferum* Sims, seldom does the rosette

of leaves expand, remaining more or less half closed and somewhat globose and due to this habit, in combination with its coloring, it is fairly distinct among other closely allied small spp.

The leaves are distinctly lined and are lighter near the tips, only under quite shaded growing conditions are the leaves concolorous. The withering tips of the leaves as well as the oldest withered leaves are reddish tinged. The peduncles and pedicels have a distinctive reddish hue. This little Haworthia flowers during April and May in Southern California.



FIG. 111. The First Lady, *Nopalxochia phyllanthoides*. Basket arrangement showing profuse floration of young plant. Ventura Epiphyllum Gardens.

The Cascading Epiphyllums

PART II.

By JACOLYN MANNING, M.D.

This New World was discovered, not just once, by Europeans, but thousands of times, as each strange new edible, smokable, medicinal plant, shrub or tree, disclosed its mysterious charm. Of all the unique flora of this hemisphere, there was one family surpassing in savage beauty, hitherto unseen. It was the American aborigine, *Cactaceae*.

Exploring botanists, Spanish, Italian, French, German and English, carried these exotics to the Old Country, and exploited them under the

name, however unrelated and unpronounceable, of the finder or the finder's friends. For instance *Trichocereus Schickendantzii* was named for a German pedagogue who sent this modest beauty home, from the school of Tecuman, N. W. Argentine Republic, where he was instructing the young Indians of the Andes.

The Cordilleras of South America have for five hundred years been the most extended and fruitful hunting ground for botanists in search of fresh beauty. It was near the north end of

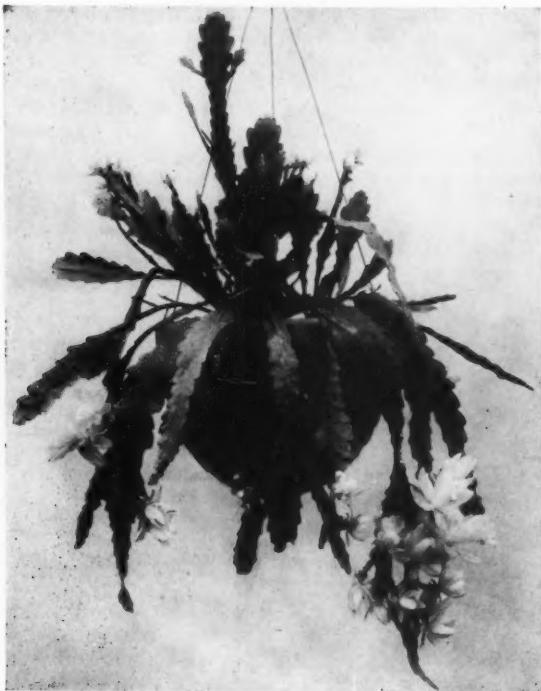


FIG. 112. Artistic Basket of First Lady. R. F. Kado photo.

these ranges, in the vicinity of Turbaco Village of Colombia, in a garden, that the French explorer, Bonpland, in 1803, rediscovered the loveliest species of cascading cactus, now classified by botanists as *Nopalxochia phyllanthoides*. Taking ripe seed to France, the plant was grown and flowered in the garden of La Malmaison. It proved to be one of the oldest known species of *Cactaceae*, having been described and drawn by the Spaniard Hernandez, in 1651, almost three hundred years ago.

This exquisite, prolific matriarch of the pendant cacti, having the finest complexion and the most engaging manner of growth, is known to us only through the winning beauty of her own and her children's floration. Her origin is shrouded in mystery. Found only in cultivation, in gardens, she seems to be a striking example of the survival of the fittest, said to have come down to us from pre-historic times. Although there must have been an ancestry and lateral relations, they are unknown. Swept from existence by flood or fire, ravaged by epidemic pests, or discarded by lovers of her peerless beauty, she alone survived from pre-historic periods.

In all these decades of combing the virginal tropical jungles of the American Hemisphere no

native habitat of *N. phyllanthoides* was discovered, although she was found blooming in cultivation in gardens as far north as Central Mexico.

However, we can trace her modern travels, for in 1819, an Englishman, Haworth, in a supplementary list of Succulent Plants, gives her a brief notice under the name of *Epiphyllum speciosum*. In 1831 she had been taken to Germany, for Link, in his Handbook *Gewächs*, Vol. II, classifies the beauty as *Phyllocactus phyllanthoides*.

German gardeners quickly recognized the inherent qualities of grace and color, and perfected the technique of extraordinary floration of this regal barbarian. They hastened to adopt her as a topnotch citizen, and called her the Deutsche Kaiserin, or German Empress. Thus our American beauty had traveled far, and now lived a most artificial life, in greenhouses, under glass roofs, and in sunny windows in modest cottages.



FIG. 113. Profile showing grace of arching stems of First Lady. R. F. Kado photo.

If plants are sentient, and who can affirm otherwise, this lovely child of the American Equatorial Zone must have longed for the crisp air of the Andean hills and the fervid caress of Pacific breezes. Unbelievably the wanderer was already started on the first lap of her desired return. Although the date is obscure she crossed the English Channel, for we find her listed in *Curtis Botanical Magazine*, Plate 2092, as *Cactus phyllanthoides*.

Her English homes were aristocratic, for making collections of these savages of the New World cacti was the current fashion of men of title. We may hope, although no record is at hand, that she bloomed gayly in Christopher Wren's famous London *Orangerie*. Presently she reached Kew Gardens.

Hybridizing cacti became a pastime among English noblemen, which they presently forsook to chase beautiful butterflies in strange lands, or, in person or vicariously, hunt the elusive Orchid. But in Germany the cultivation and propagation of these novel oddities became the serious occupation of commercial nurseries. Collectors were financed and kept constantly in the field in Mexico and all the countries of Central and South America.

Careful classification was begun of genus, subgenus, species and varieties and making up the baled cargos that came by sail or steam to Hamburg and other ports. Specimens varied from the daintiest *Mammillarias* of an ounce or two, to monumental "our Fathers" * weighing tons. They were all welcomed, housed, catered to, and cross-bred by the painstaking German gardeners.

In time, with improved methods of propagation of imported plants and the collected seeds, German gardeners [notably at Erfurt], built up a surprising *export trade* with the United States of America, of fine specimen cacti, and even more novel hybrids. Thus did our truant lady complete her long itinerary, and return to this, her native land, bringing with her a score of lovely daughters.

Here on the west coast we have become greatly enamored of this First Lady of all the Americas. Suspended from the crossbeams of a patio roof, or placed on a pedestal, she likes our summers and winters, and in spring, in a transport of fertility, her swaying stems flower at every successive areole.

We have many uses for her blooms during the period of her long floration, which coincides with the bridal months. The pink sprays find lodgment in every curl, on every breast, as cor-

sage, or shower bouquet. Single flowers are used on wrists, as ear drops, for ring settings, and woven into perfect waxy pink leis. Perhaps the most publicized use here on the coast was the presentation to Ellen Beach Yaw, at a banquet in her honor, of a basket dripping with fifteen hundred coral pink blooms of this First Lady of the *Cactaceae*.

California hybridists have found *N. phyllanthoides* a willing subject for cross-fertilization, steadfastly retaining delicacy and grace in outline, while accepting any desired color change in her flawless complexion. Johnson's "Purple Kaiserin" is popular; Coolidge lists "Silver Chimes;" the Beahm Gardens have a tomato red hybrid named "El Rey;" Kado has "Pink Triumph" in both pots and unique hanging baskets. The Monmonier Gardens kindly gave me a list of their 1942 introductions of new hybrids of the First Lady, the prismatic successes of years of careful work: "Gay Senorita," clear pink with red center; "Infanta," scarlet red; "Ballerina," delicate shades of salmon pink; "Filigree," delicate lavender pink; "Fairy Bell," deep purple; "Darliene," chamois pink. There are many others, and it is very desirable to see them in bloom. So mark your spring calendar to visit at least one Epiphyllum nursery every Saturday from Easter to the Fourth, and not miss these visions of rainbow beauty, and the one hybrid you had set your heart on.

Like beads on a noble Rosary all the Republics of the Americas will soon have access to a Camino Real which trails the Cordilleras from snow to snow. This is the greatest of all highways, the longest and friendliest of highways, constructed not as a barrier, but as a welcome and an invitation to get together as brothers.

In that same spirit may we not crash the tinsel crown brought from an effete monarchy of the old world, and rechristen *Nopalochia phyllanthoides* for the First Lady of every American Republic?

Daily in Spring when her buds are unfolding and I give her a long drink, I murmur, "Because of thy perpetual youth, beauty, response to love, and thy nativity, with this water I christen thee First Lady of the Flowers of all the Americas."

Copyright of text to Jacolyn Manning, M.D.

PLANTS IN THE HOME by Frank K. Balthis. Winner of the \$1000 Macmillan Garden Book Award. 172 pages 8x11, 95 drawings, Index to English Names, and Index to Botanical Names. Well printed in very readable type. Published by Macmillan, 1941. Price \$2.50, Box 101, Pasadena, Calif.

*See JOURNAL Vol. X, pg. 30.

SOME NEW SPECIES OF STAPELIEAE AND CEROPEGIEAE FROM EAST AFRICA

PART II

By EILEEN A. BRUCE and PETER R. O. BALLY

Photos: P. R. O. BALLY

Caralluma vibratilis E. A. Bruce et P. R. O. Bally, sp. nov.; affinis *C. venenosae* Maire, sed caulis dentibus brevioribus, corollae lobis pilis clavatis vibratilibus ciliatis, forma corona differt.

Planta succulenta, erecta, usque ad 20 cm. sed plerunque 5-10 cm. alta; caules simplices vel parce ramosi, tetragoni, angulis obtusis, vix 1 cm. diametro (dentibus exclusis), glauco-hepatico-maculati; caules subterranei infra humum repenti, usque ad 1.75 m. longi, *C. subterraneae* similes; dentes patentes, breves, 2-4 mm. longi, basi rotundato-conici, apice acuminati. *Flores* caulis apicem versus 1-3 fasciculati; pedicelli breves, 1-2 mm. longi, glabri, acuminati. *Corolla* 8-12 mm. diametro, usque ad medium 5-lobata; tubus campanulatus, circiter 5 mm. longus, fauce 4 mm. diametro, intus puberulus, hepaticus, extra glaber, viridis; lobii erecto-patens, ovato-deltoides, 4-6 mm. longi, 3-4 mm. lati, acuminati, extra glabri, virides, apicem versus purpureas, intus minute puberuli, purpureo-hepatici, flavo-viridi-vittati, margine pilis 1.5-2 mm. longis clavatis vibratilibus ciliatis. *Corona* duplex, interiore et exteriore in corpus unum confluentibus, cupuliformis, atropurpurea, basi in tubum 1.5-2 mm. longum producta; corona exterior 10-dentata, dentibus binis erectis brevibus 0.5 mm. longis; lobii interiores 5, late lineares, 1.5-2 mm. longi, apice rotundata, super antheras incombentes et eas paullo superantes.

KENYA COLONY. Athi River Station, near Nairobi, 1530 m., Mr. MacArthur; Embakasi Station, 1560 m., Miss MacDonald; Mariget, near Lake Baringo, 25 March 1940, Capt. A. Ritchie S (35) (type).

TANGANYIKA TERRITORY. Plant cultivated at Mtotohovu, Moa, by Col. Boscowen, Greenway C, D.

The specific epithet 'vibratilis' aptly describes the flowers of this species, which is characterized by the mobile clavate hairs fringing the corolla-lobes. *C. vibratilis* closely resembles *C. subterranea* in its habit of growth and like the latter develops long underground rhizomes. The corolla is a dark purplish-maroon within, minutely spotted with yellowish-green, whilst outside it is greenish, tending to purple towards the tips of the lobes; in the campanulate form of the corolla-tube this is most nearly allied to *C. venenosae* and *C. sacculata*, in both of which the lobes are subequal to the tube. The corona in *C. subterranea*, however, is rather different from those in either of these species. It is dark purple in color and more or less spherical in shape, the lower half being cup-shaped, whilst the lobes



FIG. 114. *Duvalia tanganyikensis* E. A. Bruce et P. R. O. Bally. Photo by P. R. O. Bally of the type specimen.

arise from the upper edge; the outer 'lobes' are divided into two small, blunt, erect teeth, whereas the inner lobes are entire and broadly linear, curving over the anthers and touching one another, so completing the 'sphere.'

Duvalia tanganyikensis E. A. Bruce et P. R. O. Bally, sp. nov.; affinis *D. politae* N. E. Br. var. *transvaalensis* (Schltr.) White et Sloane, sed annulo glabro, lobis corollae angustioribus longe acuminatis, caulis dentibus distantibus differt.

Planta perennis, succulenta; caules parce ramosi, procumbentes, virides, hepatico-maculati, usque 5 cm. adscendentes, usque ad 65 cm. longi, 1-1.8 cm. diametro, 5-angulati, angulis obtusis; dentes parvi, 1.5-3 mm. longi, inter se 1-1.5 cm. distantes. *Flores* pauci, caule breve 1.5-6 cm. longo, 0.4-1 cm. diametro orti, 1-2 succedanei; pedicelli 1.2-1.8 cm. longi, 1.5-2 mm. crassi, glabri. *Calycis lobii* trianguli-subulati, 7-12 mm. longi, acuminati, glabri, corollae sinus attingentes vel superantes. *Corolla* rotata, glabra, circiter 3 cm. diame-

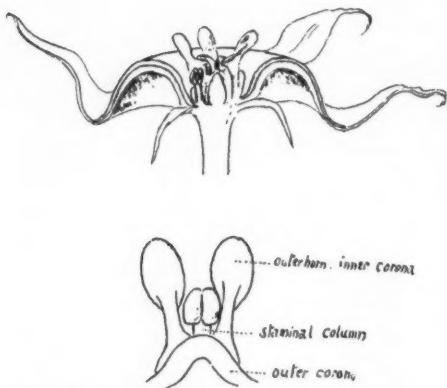


FIG. 115. *Duvalia tanganyikensis* E. A. Bruce et P. R. O. Bally. Drawings by P. R. O. Bally.

tro; lobi patentes vel leviter recurvati, numquam repli-
cati, salmonacei, anguste triangulares, circiter 1 cm.
longi, basi 6 mm. lati, apice acuminati, laeves, margine
leviter undulato; annulus convex, conspicuus, glaber,
vinaceus, 1 cm. diametro, 5 mm. altus, hemisphaericus,
laevis et lucidus. *Corona* duplex, interiore et exteriore
in corpus unum confluentibus; corona exterior sub-
pentagona, 5 mm. diametro; lobi interiores 5, sul-
phurei, antheris incumbentes, dorso in cornu ovatum
circiter 1.2 mm. longum et latum producti, supra an-
nulo 0.75 mm. projecti.

TANGANYIKA TERRITORY. Longido Mt., 1500 m., in half shade at foot of gneiss rocks forming a dense mat, fl. 9 April, 1939, P. R. O. Bally S (19) (type).

This new species is the first record of the genus from Tanganyika and forms an interesting addition to its distribution, as, with the exception of *D. sulkata* from Southern Arabia, the previous northern limit was that of *D. polita* in Ngamiland. *D. tanganyikensis* is most closely allied to the latter, but differs in the narrower, more acuminate corolla lobes which are salmon-pink in color, the glabrous deep wine-red annulus and the small, blunt stem-teeth which are more widely separated from one another.

Echidnopsis angustiloba E. A. Bruce et P. R. O. Bally, sp. nov. [Asclepiadaceae]; affinis *E. scutellatae* (Defr.) Berg. sed caulibus 11-angulatis, lobis corollae linearibus differt.

Planta perennis, succulenta, erecta, circiter 7-10 cm. alta, 1-2 cm. diametro; caules simplices vel interdum parce ramosi, ambitu subcylindrici, sed apicem et basin versus angustati, longitudinaliter sulcati, obtusissime 11-angulati, tuberculati; tuberculi prominentes, 4-angulati, circiter 2 mm. diametro, apice indurati; folia rudimentaria, caulis apicem versus instructa, anguste triangulares, 2 mm. longa, caudato-acuminata. *Flores* caulis apicem versus pauci-(2-6) dispositi, succedanei, sessiles. *Calycis* lobi patentes, ovato-lanceolati, acuminati, 1.5-2 mm. longi, glabri. *Corolla* rotata, circiter 1.2 cm. diametro, glaber, 5-lobata; lobi circiter 3 mm. longi, basi brevissime ovato-triangulares, dein abrupte

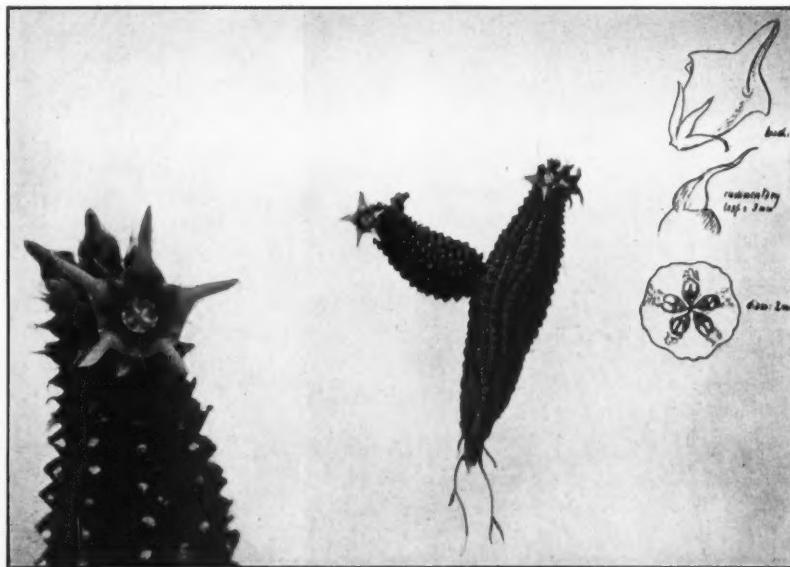


FIG. 116. *Echidnopsis angustiloba* E. A. Bruce et P. R. O. Bally. Photos and drawings by P. R. O. Bally of the type specimen.

angustato, lineares, apice acuti; tubus brevissime, late campanulatus, circiter 2 mm. diametro. *Corona* duplex, glabra, 2 mm. diametro; corona exterior patelliformis, margine undulato et irregulariter crenato-dentato, lobi interiores 5, linearis-subulati, acuti, erecto-conniventes, antheris incumbentes et superantes.

KENYA COLONY. 5 miles from Archer's Post on the road to Isiolo, 18 Dec. 1939, Mrs. Hugh Copley S (26) (type): in dry bush country.

This species of *Echidnopsis* differs from other members of the genus in the 11-angled stem and the narrow corolla-lobes. It shows affinity with *Trichocaulon* in the former character, but the structure of the outer corona excludes it from this genus. The plant is greyish olive-green in color and the rudimentary leaves are reddish. The corolla lobes are pale lemon-yellow with a greenish tinge, whilst the central portion forms a regular star-like pattern of dull maroon. The corona is lemon-yellow.

Ceropegia seticorona E. A. Bruce, sp. nov.; affinis *C. Lugardae* N. E. Br. sed foliis lanceolatis vel ovato-lanceolatis acutis pubescentibus, corolla breviter pubescente, lobis brevioribus apice nec dilatatis differt.

Herba perennis, caulis volubilis glabrescentibus. *Folia* petiolata; petiolus usque ad 1 cm. longus, pubescens; lamina lanceolata vel ovato-lanceolata, basi rotundata vel late cuneata, apice acuminata, (2-3 cm.)* longa, (1-1.5 cm.) lata, supra glabrescens, subtus parce pubescens, margine integra ciliata. *Inflorescentiae* ex axillis foliorum longe (3-12 cm.) pedunculatae, circiter 5-8-florae, pedicellis (1-3 cm.) longis pubescentibus. *Calyx* usque ad basin 5-lobatus, lobis lanceolatis circiter (3-5 mm.) longis pubescentibus. *Corolla* extus breviter pubescente, (2.5-3.5 cm.) longa; tubus (2 cm.) 2.5 cm. longus, basi (5 mm.) 6 mm. leviter inflatus, deinde (1.5 cm.) 2 cm. cylindricus, apicem versus vix dilatatus, fauce (5 mm.) 6 mm. diametro, intus sparse pubescens; lobi conniventes, lineares, graciles, pubescentes, 0.8-1 cm. longi, basi anguste deltoides, apicem versus tenuiores nec ampliati. *Corona* phyllis exteriorius in cupulam connatis lobis leviter et sparse pubescentibus profunde in 2 dentes linearis-spathulati 2-2.5 mm. longi partitis, interioribus late linearibus 3.5 mm. longis apice subrotundatis glabris, phylla exteriora pulla superantibus.

KENYA COLONY. Kiambu, 1710 m., 5 November, 1934, E. R. Napier (Coryndon Museum 6624): Climbing succulent herb in open bush. Ngong, 1800 m., 15 April, 1935, Dr. van Someren (Coryndon Museum 3640): in forest; 1770 m., 27 February, 1934, Dr. van Someren (Coryndon Museum 5869): a fleshy climber in the forest, flowers dull pale yellow spotted with maroon. Near Nairobi, 6 January, 1914, M. S. Barber s.n. (type): Climbs to a height of 8-10 ft. among shrubs, flowers freely and is sweet scented, leaves very thick and fleshy. Langata forest, 1800 m., July, 1936, Dr. van Someren (Coryndon Museum 8415): Climber, flower to 6 cm., leaves 6.3 x 5.2 cm. (Spirit material).

KENYA COLONY: near Namanga, 8 April, 1938, P. R. O. Bally (Coryndon Museum 7319) Herbarium and spirit material: dry open bush country, climbing over bushes (*Commiphora*).

This species is characterized by the comparatively long peduncle at the apex of which the long-pedicellate flowers are borne. The corolla has a cylindrical tube which is scarcely inflated at the base or throat; the lobes are very slender, cohering at the tip and giving the appearance of a bird's beak. The outer lobes of the corona are bidentate, the teeth are broadly triangular and spreading, tipped with one or two long bristles and thinly hairy at the base; the inner lobes are

much longer than the outer, narrowly linear, erect and hooked at the apex.

Ceropegia succulenta E. A. Bruce, sp. nov.; affinis *C. Robynsiana* Werd., sed lobis corollae deltoideis vel trianguli-ovatis nec linearibus, lobis coronae plus minusve sub-equalibus nec manifeste superantibus, exterioribus pubescentibus, differt.

Herba perennis, caulis volubilis carnosis glabris. *Folia* petiolata; petiolus (0.8-2 cm.)* longus, crassus, glaber; lamina carnosa, oblongo-elliptica vel ovata, basi rotundata vel late cuneata, apice rotundata et abrupte apiculata, (3-7 cm.) longa, (2-5.5 cm.) lata, utrinque glabra, margine integra (in statu sicco paulum undulata). *Inflorescentiae* ex axillis foliorum (1-2.5 cm.) pedunculatae, 2-6 florae, pedicellis (0.5-1 cm.) longis glabris. *Calyx* usque ad basin 5-lobatus, lobis (3-6 mm.) longis glabris. *Corolla* circiter (3.5 cm.) plus minusve 6 cm. longa; tubus (2 cm.) plus minusve 4 cm. longus, basi (1 cm.) 2 cm. ovoides-inflatus (0.5 cm.) 1 cm. diametro dein (0.6 cm.) 1 cm. abrupte constrictus, cylindricus, apicem versus sensim dilatatus, late infundibuliformis fauce (1 cm.) 2 cm. diametro, intus et extus glaber; lobi erecto-conniventes, replicati, (1-1.5 cm.) 2 cm. longi, basi deltoidei, (1 cm.) plus minusve 1.5 cm. lati, superne triangulares, subacuti, sparse ciliati. *Coronae* phyllis exterioribus in cupulam connatis lobis leviter et sparse pubescentibus profundae in 2 dentes linearis-spathulati 2-2.5 mm. longi partitis, interioribus late linearibus 3.5 mm. longis apice subrotundatis glabris, phylla exteriora pulla superantibus.

KENYA COLONY. Kiambu, 1710 m., 5 November, 1934, E. R. Napier (Coryndon Museum 6624): Climbing succulent herb in open bush. Ngong, 1800 m., 15 April, 1935, Dr. van Someren (Coryndon Museum 3640): in forest; 1770 m., 27 February, 1934, Dr. van Someren (Coryndon Museum 5869): a fleshy climber in the forest, flowers dull pale yellow spotted with maroon. Near Nairobi, 6 January, 1914, M. S. Barber s.n. (type): Climbs to a height of 8-10 ft. among shrubs, flowers freely and is sweet scented, leaves very thick and fleshy. Langata forest, 1800 m., July, 1936, Dr. van Someren (Coryndon Museum 8415): Climber, flower to 6 cm., leaves 6.3 x 5.2 cm. (Spirit material).

This is a large-flowered, succulent climber with oblong-elliptic, fleshy leaves. The corolla is much inflated at the base, then abruptly contracted into a comparatively narrow tube and finally widely expanded at the throat; the lobes cohere at the apex and are more or less triangular in shape and folded back along the center so that the margins nearly touch. The corona is cup-shaped at the base and thinly puberulous, the outer lobes are deeply bifid and rather shorter than the entire inner ones.

*The figures in brackets refer to herbarium specimens; otherwise measurements are of spirit material.



FIG. 117. *Yucca brevifolia*, the Joshua Tree, the oldest living thing on the desert, stands on guard in the Joshua Tree National Monument. Prize winning photograph in St. Louis by Roy Miller.

Joshua Tree National Monument

Behind the scenes of a beautifying and conservation project we usually find the untiring efforts of a woman.

This is no exception in the case of the recently established Joshua Tree National Monument, for whose erection Mrs. Albert Sherman Hoyt, "Friend of the Desert," is responsible. For years this Pasadena resident endeavored to secure for posterity the haunting beauty of the desert which so captivated her. Thirty-five years ago, while camping under the Joshua Trees with friends,

she was struck with the distinct personality of these peculiarly warped, grotesquely-shaped trees. Fantastic rather than beautiful, they resemble nothing so much as a pompom growing out of the end of a stick. The Joshua is believed to have evolved through centuries of drought and blistering heat from a lily to its present stature.

So impressed was Mrs. Hoyt by her study of desert flora and fauna that, in order to share her knowledge and appreciation, she gave an exhibi-

tion at the International Flower Show in 1926. Besides winning gold medals of American sponsored Garden Clubs, she won the International Gold Medal, and her last exhibit in England, in 1929, was overwhelmingly successful. Her display showed native cacti, birds and reptiles in their natural habitat of the desert regions of the Southwest.

In 1930 the Desert Conservation League was organized. Of this she is both founder and president. As a conservation officer she was interested in prospective state parks and in preserving desert areas. At this time she again visited the Joshua tree areas and found to her dismay that many of the trees had vanished in the interests of commercialism. In 1936, at her request, President Roosevelt set aside about 880,000 acres in Riverside and San Bernardino Counties in Southern California, and gave this section the name Joshua Tree National Monument.

To quote Ethel C. McDonald in "The Vancouver Daily Province" of September 18, 1941.

... "A circle tour of the most dramatic scenery in the monument covers about 35 miles. On entering the monument the highway leads through low hills where in some places Joshua trees are on either side of the road. It crosses old washes where the graceful desert willows and wild olive trees grow—a contrast to the cholla and creosote bushes, commonly called greasewood, a few miles behind.

"The highway soon leads into the higher ranges, and rock piles appear, increasing in number till the Wonderland of Rocks is reached. Giant boulders of yellowish granite form mesas and whole mountains of jumbo masses. . . . Many are weird and fantastic, resembling men and animals. Pinon pines . . . are seen in mountain gulches and also on the higher slopes.

"The view (from Inspiration Point, altitude 5175 feet) is magnificent, San Jacinto, 10,205 feet high, and San Gorgonia, snow-capped and over 11,000 feet, dominate the entire amphitheatre, and rise majestically above the Santa Rosa mountains; the valley floors stretching far out to the Salton Sea, below sea level. . . .

"The northern exit of the monument is at Twenty-nine Palms, a delightful town, which is like no other, on the edge of an oasis comparable to those in Egypt."

All cactus lovers and members of affiliate societies should petition their representatives that this area may soon be formally dedicated so that, by placing it under government protection, depredation may cease. The Cactus and Succulent Society of America and its affiliate groups offer their services in such dedication of this national monument. Let us carry on the work of Mrs.

Hoyt and preserve the desert flora.

Copies of the petition below are being sent to all affiliated groups and we ask that all members sign them. Members not affiliated with local groups may copy this letter and mail it to the President or send to us for a copy which can be signed by as many of your friends as you can interest.

HONORABLE FRANKLIN D. ROOSEVELT,
President of the United States,
WASHINGTON, D.C.

DEAR MR. PRESIDENT:

On August 10th, 1936, you set aside by Presidential Proclamation approximately 800,000 acres in Riverside and San Bernardino Counties, California, designating this territory the Joshua Tree National Monument.

Thereby you made possible the eventual creation of the finest Desert National Park in America, one in which ancient geological formations foster the growth of xerophytic plants rarely found outside of this area. Unfortunately, depredations by commercial collectors and conversion of more desert lands into farming areas threaten with extinction many species of desert flora.

Yucca brevifolia (the Joshua tree) the oldest living desert thing, is so threatened. Similarly, *Coryphantha Alvesonii* (the Fox Tail Cactus), *Opuntia erinacea* (the Old Man of the desert) and *Phellosperma tetrancistrata*. These are found in very few locations outside of this area and they may become extinct even as the beautiful *Bergerocactus Emoryi*, which once brightened the coastal plains of California, has become extinct in our state.

We therefore petition you, and through you, the Honorable Secretary of the Interior, to preserve intact the acreage as outlined in your Proclamation, of the Joshua Tree National Monument which, through your foresight, has been set aside for the Americans of the future. We ask that this area may soon be formally dedicated.

WINTER TREATMENT OF CACTUS

When we who have cold or wet winters to contend with, and have to store our cactus in attic or basement where they are not very accessible, the opportunity for study is limited. I bring a few down to the sunroom to make a pleasing display from which I take a great enjoyment, reading up about each one until I get thoroughly acquainted with it as I read up on the various authorities at my disposal. Then I change the arrangement with a new lot almost every fortnight, benefiting the plants by giving them more light than they would get in the storage space.

From October until April is a long siege for them, they survive all right if kept on the dry side. Then in April, if the weather is good, I move them all out to a shed, open on the north side, for a month to get acclimated. Here the growing tips green up, otherwise air and winds of night and bright sun of day would rust and scar them. I know this from sad experience. By May they are ready to be transferred to the rockeries by plunging the pots to the rim, resting them on a handful of gravel to facilitate drainage.

C. W. ARMSTRONG, Vancouver, B.C.

CHECK LIST

Arizona Cacti—new edition	1.00
Cacti for the Amateur—..... Paper \$1.00; Cloth 2.00	
Succulents for the Amateur—Paper \$1.50; Cloth 2.00	

Postpaid in U. S. A. Foreign add 20c per volume
Box 101, Pasadena, Calif.

On Methods and Experiments

By LEON CROZAT

To the April number of the JOURNAL of 1941, Vol. 13, p. 59, Mr. R. S. Woods has contributed a fine photograph in which are exhibited two seedlings of *Echinocactus Grusonii*. One of these seedlings is evidently much larger than the other. The text under the photograph explains that the better plant has been kept two years out of doors, which shows how readily Cacti respond to fresh air.

I do not intend to question the soundness of the advice: "Keep your succulents outdoors" nor to challenge, be it by implication, the authenticity of the record submitted by Mr. Woods. It being necessary for me to grow succulents of many genera under climatic conditions that are altogether unlike those of California, I have had some experience with seedlings under glass. This experience has led me to the conclusion that seedlings kept indoors and suitably handled can be made to grow just as well as seedlings cared for outdoors. In other words: differences fully as marked as those illustrated by the plants of Mr. Woods can be obtained in seedlings kept under glass, hence the value of sunlight and outdoors generally is not to be taken for granted.

For the last five years I have had the use of a small greenhouse which from October to early April has an average temperature of not over 50° F. In this greenhouse I grow a great many different tropical plants, some leafy, others succulent. I have learned by now that if I want a large Euphorbia or a big Cactus I must use a *large pot*. To give an example: time and time again I have planted the very same seed in a pot of 4 inches and in a tub of about 2 feet. The result has invariably been that a large plant grew in the tub, a small plant in the pot, everything being otherwise equal. I have now at hand two plants of some succulent Euphorbia which is perhaps *E. Winkleri*. A specimen grown in a 6 inch pot is about one and a half feet tall, if so much. A second specimen, which is "tubbed," is not less than five feet tall. Both plants have reached about the same degree of maturity, as both have begun to branch at the top.

The use of *small pots* for purposes of dwarfing plants is well known to the Japanese. The masters of the ancient craft, which consists in keeping a pine tree one hundred years old alive in a shallow pan, germinate their seeds in *very small pots*. Nor is this all: they work themselves up the face of steep cliffs to dig out evergreens that have sprouted between crevices and have never had "root-room," knowing well that to

begin with, these plants are naturally dwarfed. There is a definite interrelation between the size of the container in which a plant is set and the growth made by the plant. A very interesting experiment would be to take the seedling which Mr. Woods has grown in the smaller pot and move it into the larger pot, giving to this seedling and to the other the same treatment, either in or out of doors. I may not definitely anticipate what the results will be, because I have no means to judge of the conditions of the two plants involved in this experiment without seeing them. The chances are, however, that the size of the pot will prove to be a very material factor in the growth of the seedlings in question. I venture to lay down a rule: *when large-sized specimens are desired it is better to keep five seedlings in a pot ten inches wide than to keep five seedlings in five pots each two inches wide*. Commercial growers who need plants to cut up and quick growing stock should be fully aware of the fact that "root-room" is a major consideration. Perambulating around botanical gardens and visiting private collections the experienced grower of succulent plants is oftentimes struck by the sorry sight of morgues in which tiny pots hold unhappy plants. Alas . . . In all too many cases these strait-jackets contain a thimbleful of soil and a glassful of crock and coarse broken lime which is supposed to "favor" the growth of succulents in general and of Cacti in particular. Nor is this all: since succulents "do not like water"—by definition—the hose is applied to the floor of the house but not to the benches themselves. The moisture—one is told—"goes up" and the small pots "control" the plant. I have a great deal of pity for these victims of man's cruelty, just as I would pity babies laid up in a crib that keeps their legs down in an iron vise.

Next to root-room, temperature is an essential factor of growth. I have found that succulents generally begin active growth around 80° F., and that a temperature of about 85° is ideal. Many lovers of succulent plants who worry about giving them a temperature of at least 60° in winter, and spend good cash for the purpose, might as well cut down on fuel and let their pets simmer along at a temperature of 45° from late November to March. The differences in growth as between 45° and 65° is negligible, and it does not pay to spend a fortune to secure needless heat. If I were to invest money in fuel for the greenhouse I would keep up the tempera-

ture in September, October and the beginning of November, because many plants grow actively as soon as the heat of the summer is broken. I would not worry, however, about January and February.

It is incredible how much water certain succulents stand, and how much rich food they can digest. For the sake of experiment I have fed adult Cacti liquid sheep manure aplenty and treated seedlings with a mixture of light sheep manure and lime dust, shaken up to form an homogeneous solution. I give this liquid to the pans with the dropper, "ringing" in each seedling with a generous sprinkling of fertilizer. I have had no reason to complain because I have gotten out of my plants plenty of flowers, of fruits, of growth, and I have lost none. Damping off is much more to be feared in plants that suffer from some dietary deficiency, as in Cacti, for instance, that are made to grow in soil without lime. Peculiar as this sounds, lime is a substance which Cacti use to form salts that are supposed to be merely waste matter in their tissues. Yet this waste matter must be had if the plant is to live. It may well be that such salts in the body of a Cactus bear witness to the plant having originated from ancestors who were far more woody than the present forms. At any rate, there is a balance established among these factors, namely, nature of the soil, temperature and moisture, and a plant can be fed much richer food and given much more water when temperature conditions put it in the mood to digest quickly and well. The soil must be porous, of course, although—once again—it is remarkable how many succulents can stand wet soil if other conditions are right. I should care to add that certain plants are rebellious against certain conditions, and it stands to reason that it serves no useful purpose to force them to endure conditions that kill them. It is useless, for instance, to try to grow Mesembryanthema in a hot, damp house. Some will linger on, but most will go to pieces. Euphorbias and Cacti are not Mesembryanthema, however, and to speak of all these plants as "succulents," supposing that they all are alike in their requirements, is a mistake.

Often plants are torn out of their native soil in such a manner as to inflict substantial wounds upon the root-system. When I get plants in these conditions, the first thing I do is to cut the mangled parts up to the point where real good tissue appears. Then I dip the scars into rooting hormone, to which all succulents respond well. I give time to the wounds to callous, then set the plant into a good-sized pot, in good soil, watering at first very little. If the temperature is kept around 85° rooting takes place in a remarkably short time, and the plant sets up a good root-system, beginning to feed almost

immediately. It is a serious error to try to root back a plant in a small pot, because this pot by its very size discourages strong rooting. Succulent Euphorbias should be carefully washed with running water until the "bleeding" stops, then dipped into hormone. This is because the caked-on latex is a very favorable medium for the growth of molds that cause the plant to decay at the wound.

To conclude: an experiment is not an experiment until and unless all conditions are equal save those about which we wish to learn. In other words: to speak of "outdoor conditions" means little that can be translated into tangible values. To give plants small and large pots, for instance, and compare their growth is misleading. If we wish to find out what sunlight does we must see to it that one of our subjects has *everything* which the other has *but sunlight*. Then we will know well enough what value sunlight has for growth.

I emphasize these facts not because I intend to criticize the conclusions of Mr. Woods, who has certainly not intended to conduct an experiment under laboratory conditions. However, I can not avoid thinking how often even full fledged scientists illustrate their conclusions with photographs that show unlike growth taking place in plants grown in pots and containers of unlike size. It is taken for granted that a small plant does not need a large pot. This is a fundamental fallacy that essentially vitiates the reliability of experimental conditions to study growth in plants. Gardening is as high a form of science as botany itself, and a practical knowledge of actual problems of cultivation under glass and in the open should be had by anybody who intends to grow plants as a subject of investigation.

The more I live with plants the better I understand how close they are to the living beings of the flesh. We let a plant go without water for four days then douse it the fifth, but we would not let a dog starve four days, ramming down his throat the fifth day all the food he has failed to eat. Thus far we try at times to give a plant "natural conditions," which is downright impossible, but we would never think of sending an expedition to the wilderness of Brazil to bring back certain nuts of which Polly's ancestors were very fond. We feed the parrot sunflower seeds and let it go at that, knowing that he likes them, and he thrives on them even though sunflower seeds are not to be seen along the shores of the Orinoco. There is one very good thing about nature: it teaches common sense to those who are willing to take it at its face value. We have got to square ourselves with the plant we undertake to keep, and this means that we must "listen" to what the plant has got to say for itself.

THIS HOBBY OF OURS

The following article, in dealing with cacti and succulents, will treat of them as practically the same—however, the cactus is a succulent, but succulents are not necessarily cacti. Many of the other succulents closely resemble cacti and most amateur window gardeners simply designate all their succulents as cacti. It is much easier that way, but to the real cactus fancier that is unpardonable. (However, it is lots more fun to be an amateur.)

In the hot, dry, steam-heated houses of today, cacti and many of the other succulents are more suitable for an interesting window garden than many of the other plants, such as geraniums, gardenias, poinsettias, begonias, ferns and so on, that eventually turn into the "spindly and clothes poles" in Gladys Tabor's window garden, no matter how much love and labor we spend on them. When they lose all their leaves, it is certainly "loves labor lost."

Cacti and many of the other succulents are of such strange, weird and fascinating shapes—round, square, triangular, flat, oblong, snaky, symmetrical and grotesque. They have delicate and exquisite colors in grays, rose tints, reds, lavenders, misty pearl, deep purples, and gold and copper lustre effects, as well as many shades of green. These plants also have gorgeously hued blossoms of a variety of exquisite shades and shapes. But to many of us their greatest attraction lies in the queer forms of the plants themselves, rather than in the blooms.

These odd plants come from South America, Mexico, Africa and our own deserts. The Euphorbia is to the African desert what the cactus is to the American desert. The cactus plants that grow around the Mediterranean are all from our own deserts.

The fact that they do grow in the desert is probably why they will grow in our homes with so little care. However, they are not averse to the right sort of treatment and will respond to good care, the proper soil mixture, the right amount of water and plenty of sun; each one of these requirements is just about as important as the other. Garden soil and sand in equal proportions, with a small amount of slaked lime—one teaspoonful to each six-inch pot—(old plaster is excellent), some charcoal added to help in keeping the soil sweet, and a layer of broken crockery or small stones in the bottom of the pot are recommended.

It is a great mistake, and the most usual one, to say these plants need no water. They do not require much, of course, and common sense must be used in watering. A small container needs a small amount of water oftener than a large bowl or pot. Some of them want more water than others, so the interested gardener will watch her plants carefully each day, study their needs and act accordingly. Rotting is one of the worst tragedies of the cactus world, but drying and shriveling is even a greater one. However, it is better to under water than to over water. Common sense must again be emphasized. Never allow water to fall on the foliage or stay in the heart of a plant as this will cause spots and rot to appear. Water when the soil appears dry but do not saturate ever. Keep the ground fairly moist. A watering can with a long, slender spout is an absolute necessity for reaching underneath the plant.

Of course the other succulents can stand more water than the cacti yet caution must be used even with these, especially with *Stylophyllum edule* which is an allied plant of the *Dudleya*—this has very unusual looking pencil-like leaves and rots with much water—yet it needs a few spoonfuls about every two days.

Good drainage cannot be over emphasized and even bowls and jars with no drainage holes are perfectly

safe if the stones, lime and charcoal are used as above mentioned.

Various shaped containers add to the interest and good looks of the window garden and many unusual ones may be found in the ten cent stores. The Mexican pottery and Indian bowls are charming and very suitable for cacti. Clay pots may be painted in reds, blues and blacks. Wooden bowls are nice and your grandmother's old mottled brown and white butter jar is lovely, as well as the antique copper and iron pots and bowls.

Echeverias are among the loveliest of the succulents and are extremely satisfactory if the lower leaves are kept picked off as they dry. If desired to increase number of plants, offsets may be broken off and new plants easily started. *E. crenulata* is one of the largest and most beautiful with curving leaves that look like frosty mother-of-pearl luster shading back into a deeper reddish purple. It has lovely rose-colored, bell-like blossoms. *E. crispa* is similar to above but grows larger and is not so deeply colored. *E. macrophylla* is one of the largest of these plants and is very deeply and beautifully colored. *E. globosa* is a pale bluish round rosette which is very lovely.

Kleinia articulata is extremely interesting with its thick blue-green candle-shaped stems and shovel-like leaves sprouting from the top; it is very easy to grow and also easily propagated. *K. repens*, the smallest of the blue tubular-leaved Kleinias, is very satisfactory and propagates easily. Does not like much water.

Kalanchoes are very lovely. *K. globulifera v. coccinea* (*K. Blossfeldiana*) is especially beautiful with its heads of coral-red flowerets. It grows from cuttings and seeds and, in fact, too many seedlings appear. They are like the cow-bird—the babies appear in all the neighboring pots unless the seed heads are cut before maturing. However, these seedlings will bloom when not over an inch in height and when potted up in fancy little jars make adorable gifts—they look like tiny baby girls carrying pink parasols.

Bryophyllums are closely related to the Kalanchoes. They are also easy to grow and are very interesting with cunnering babies appearing on the edges of the leaves. There are many varieties of them. In Bermuda, *B. calycinum* is a weed with the young ones growing up from the dropped leaves.

Some of the Sedums make fine pot plants, such as *S. Adolphi* with golden yellow thick leaves; *S. multiplex*, like a little pine tree; *S. Stahlii*, with small, dark, reddish-brown leaves like baked beans; *S. Treleasei* with pale blue, pearl-like leaves; and *S. Winkleri* with perfect little green rosettes in clusters.

Aloes are nice plants if given proper care. *A. arborescens* is probably the most satisfactory with many young plants forming around the base of the old one. It has a light green, long, slender leaf with rough, jagged edges. There are many kinds of Aloes: striped, variegated, warty, or toothed.

In the Mesembryanthemum group are many interesting and intriguing plants, but perhaps the oddest and most unusual is the *Pleiospilos Bolusii*. This queer stone-faced plant never has more than two full grown leaves at a time and no stem at all, but occasionally a lovely golden bloom that bursts out between the two heavy, thick leaves. There are many others in this group that are worthy of your time and attention.

In the cactus family, the "Bishop's Cap," *Astrophytum myriostigma* is most unique as well as "The Living Rock," *Ariocarpus fissuratus*, which looks more like an amphibian than a plant; the famous Peyote or Mescal Button, *Lophophora Williamsii*, is nice with no spines and is quite unlike the Mexican "Golden Ball," *Echi-*

nocactus Grusonii, which is certainly very spiny, but easy of culture, very beautiful and grows quite large.

These are only a few of the more easily grown plants and there are many others just as unique and interesting, many of which are shown in the various nursery catalogues. The *Cactus and Succulent Journal* is very helpful to the cactus enthusiast and many fine books have been written on the subject.

The sun streaming through a window with southern exposure, strong wooden shelves painted like the wood-work of the room, a few red, blue, amethyst, and green glass pitchers from the "pitcher shelves" and you have the setting of an exotic indoor garden which will be a source of joy to yourself and a wonder to your friends who will very likely think you a little "off." Once you begin collecting and growing cacti you are doomed, for it has a fascination no other hobby can boast and is limited only as far as space permits. Experiment with its culture and you will find a new world of beauty and enchantment opening before you.

MRS. J. FRANK KEY, Virginia.

ON THE PRONUNCIATION OF SCIENTIFIC NAMES

Cacti or Cacti (e) Again

Practically everybody at the conference failed to follow the Latin and Greek pronunciations, including professors. The *Glossary* also fails to follow it. Now, this can mean one of two things. Either these words have become so much a part of the English language that it has grown customary to mispronounce these words, or else this is an innocent thing, only showing lack of classical training. I know that Greek hasn't been taught hardly at all. In the past twenty-eight years since I left college, I have only come across about five or six people who had read Greek at all, but Latin is still taught in the high schools, and there must be quite a few people in the world who know a little of the language. Thus this is difficult for me to understand, though, perhaps it shouldn't be, as I remember, while at college that scientific students didn't study languages.

Here are a few examples: The word *cacti*, if given Latin pronunciation leaves the last letter with the English "c" (long sound). The sound of the letter "i" as we know it in the personal pronoun "I" doesn't exist in either Greek or Latin, except in the diphthongs "ae" Lat. and "ai" Greek. In fact I do not know any other language that used the sound. I dabbled a bit into German also, and it doesn't. Also the letter "c" doesn't exist in Greek, and in Latin only as a hard sound like "k." Thus we continually mispronounce the word "cereus" which comes from the Greek root "Knenas" meaning wax candle. This word is in our English dictionaries with the Anglicized pronunciation, so there is nothing to do about it perhaps. Also I often noticed the letter "i" at the end of a word is given the English long pronunciation as in Palmeri which should be called Palmeri (e).

In my mind I use the classical pronunciation, and in telling others I also use it. I may be doing wrong, but my mind refused to work the other way. We have recently started a new Club in this territory and I am teaching the members (practically virgin soil as far as this is concerned) the classical language. My point is this. If we use these languages, and of course we should, we should use them correctly. If the formation of the words, number, and gender are followed closely, why not the correct speaking of the words also.

ELINOR J. SUTTON, Iowa.

Some criticism having been directed at the

use of Anglicized pronunciation for scientific names, the present writer, as the one responsible for the use of such pronunciation in the *Glossary of Succulent Plant Terms*, has been asked by the editor to make a brief explanation for the benefit of those who have joined the Society since this matter was previously discussed.

At the outset, I should make it clear that I have no personal preference for the "English method" of pronunciation, but believe that the "Continental method" might be better in that it is nearer to that employed in many other countries, as well as to the original Latin. However, the prime desideratum is uniformity of practice throughout this and other English-speaking countries; therefore those who seek to bring about the adoption of any other system of pronunciation should begin by convincing the editors of Webster's, Standard, Century and all other well known English and American dictionaries, who unanimously employ the English method for the pronunciation of Greek and Latin words in English context.

This question does not solely involve biological nomenclature, but has a much wider scope. I wonder if those who insist on the classical pronunciation of scientific names also say "Kysar" and "Kickero" when referring to certain characters in Roman history. *Caesar* and *Cicerio* are as much Latin names as any which are attached to animals or plants, and their use in English speech is analogous. Legal phrases from the Latin are likewise customarily given the Anglicized pronunciation.

Those who demand authentic classical pronunciations must also decide what they will do about the very numerous Greek words, which are not only spelled with different characters, but were accented and sounded by entirely different rules from the Latin. When certain Latin authors, such as Pliny, made use of Greek names of plants and animals in Latin text, they adapted them to the Latin alphabet, spelling and (undoubtedly) pronunciation, an example followed by English-speaking lexicographers.

It might be added that pronunciation of classical words by the English method is no more subject to individual whim than under the Roman method, as it is governed by definite and detailed rules, which formerly were applied also to the reading of Latin text in all American and English schools.

ROBERT S. WOODS.

TEN YEAR INDEX

Your back issues will be more usable if you have this 10-year cumulative index of 20,000 references. Mr. E. M. Baxter devoted a year's spare time to compiling this work. Most of the known plants are listed, as well as the names of people who have made cactus history these last ten years. Bound in cloth, 60 pages \$1.50 postpaid. Box 101, Pasadena, Calif.

Special this month, postpaid, any of the following foreign seedlings cacti: 8 for \$1.00; 15 for \$1.50; 32 for \$3.00 (all).

Notocactus: Leninghausii, Haselbergii, Ottonis, submammulosus, apicis.

Lemaireocereus: Weberi, pruinosis.

Cephalocereus: chrysacanthus, senilis.

Trichocereus strigosus.

Astrophytum: ornatum, myriostigma.

Cleistocactus: Baumannii, Strausii.

Echinocactus Grusonii.

Mammillaria: bocasana, Calacantha, campotricha, celiana, elongata, Fischeri, occidentalis, Lindsayi, magnimamma, Kellermania, mendeliania, perbellia, pygmaea, sphaelata, semperfervivi, prolifera, plumosa.

Free illustrated catalogue.

Californians send 3c tax, please.

KNICKERBOCKER NURSERY

P. O. Route 3, San Diego, Calif.

Our cacti price list now ready for distribution. Some very attractive offers. Over twelve years in the business. Wholesale and retail. Drop us a card for our price list. Supplements of special offers added from time to time.

A. R. DAVIS

P. O. Box 167, Marathon, Texas

CLOSE OUT OF EPIPHYLLUMS

Not having disposed of collection as a whole, I am offering 12 to 15 inch cuts of well known Epiphyllums for 10c each. No order less than \$2.00. Please allow small amount for postage and packing. Large plants for 35c to 50c. F.O.B. Los Angeles. Advise local residents to call Sundays and select their choice. Greatest opportunity to start a large collection.

H. M. WEGENER

1190 Leighton Ave., Los Angeles, Calif.

THE LATEST BOOK FROM ABBEY GARDEN PRESS

The Succulent Euphorbieae of Southern Africa ready for delivery in November, two large volumes containing 1000 pages and 1200 illustrations—\$12.00. U. S. postage 15c. Foreign postage 1.25. California Sales Tax 36c. Exclusive sale, Box 101, Pasadena.

HEY, YOU CACTUS GALS!

Is the old man sort of down in the mouth these days? Why not give him a break this year and present him with a nice new set of Britton and Rose for Christmas, it would pep him up more than a bushel of vitamin B-1.

(Your surplus Cactus or other Succulent books, Journals or magazines taken as part payment.)

Frank R. "BOOK-MARK"

825 Elyria Drive Los Angeles, Calif.

COMMERCIAL DEALERS

QUALITY HILL CACTUS HOME

CACTUS AND SUCCULENTS

559 Evanston Ave.

Kansas City, Mo

THE CACTUS GARDENS

WHOLESALE AND RETAIL CACTI AND SUCCULENTS

6000 N. Closner St., Edinburg, Texas.

R. W. POINDEXTER NURSERY

WHOLESALE GROWERS CACTI AND SUCCULENTS

1000 N. Temple St.

Compton, Calif.

KNICKERBOCKER NURSERY

CACTI AND SUCCULENTS

Route 3

San Diego, Calif.

CACTUS AND SUCCULENTS

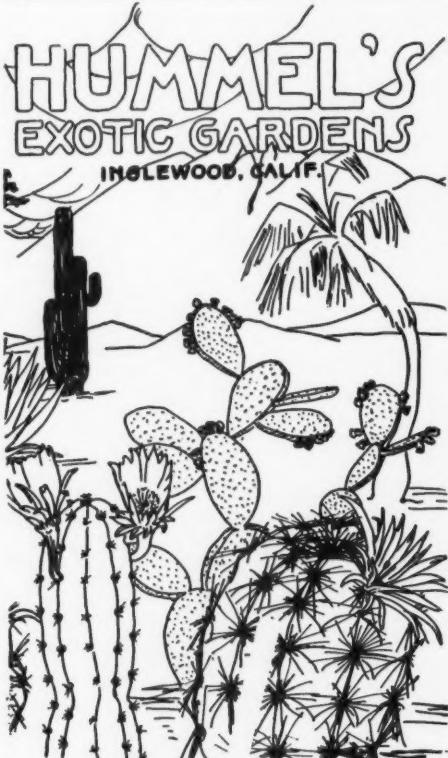


Our new 1941 seed and plant catalog now ready. Price 10c postpaid. With Amateur's Surprise Packet—100 mixed seed 25c. Un-illustrated price list free.

R. W. KELLY
Box 235-C, Temple City, Calif.

SUBSCRIBE TO THE JOURNAL FOR CHRISTMAS

Gift offer to our members only—6 months new subscription \$1.00. Box 101, Pasadena, Calif.



We do not attempt to edit the names of plants appearing in the advertisements.

